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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,109	07/31/2000	Walter Voessing	RCA 90,297	4995

7590

03/12/2004

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EXAMINER

CHAWAN, VIJAY B

ART UNIT

PAPER NUMBER

2654

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/629,109

Applicant(s)

VOESSING ET AL.

Examiner

Vijay B. Chawan

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Reference to claims in the summary of invention should be removed.

Appropriate correction is required.

Claim Objections

2. Claim 4 is objected to because of the following informalities: Claim 4, line 1 refers to method according to any of claim 1...., however, there is only one claim

1. Reference to plurality of claims 1 should be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sudharsanan et al (5,764,698).

As per claim 1, Sudharsanan et al teaches the a method for bit-rate saving encoding of audio signals using a psychoacoustic model, comprising the steps of:

performing a Fourier Transformation with a length of L samples for calculation of a minimum masking threshold by calculating k subtransformations over 2^N samples with $K * 2^N = L$ (Col.5, lines 15-40);

fitting together the results of the k subtransformations (Col.5, lines 15-40); and, arranging L samples of the audio signal in a frame for subtransformation (Col.5, lines 15-40).

As per claim 2, Sudharsanan et al the method of claim 1, wherein the number k of subtransformations is not a power of 2 (Col.5, lines 15-40).

As per claim 3, Sudharsanan et al teaches the method of claim 1, wherein before fitting together the results of k subtransformations, these are multiplied with phase correction factors (Col.6, lines 2-16).

As per claim 4, Sudharsanan et al teaches the method of claim 1, wherein the Fourier Transformation is performed within the algorithm for the psychoacoustic model 2 of MPEG I Audio Layer II and wherein the frame length is 1152 samples (Col.5, lines 15-40).

As per claim 5, Sudharsanan et al teaches the method of claim 4, wherein $k = 9$ subtransformations with a length of $M = 2^N = 128$ samples are calculated (Col.5, lines 15-40, Col.7, lines 4-67).

As per claim 6, Sudharsanan et al teaches an encoder to perform the method of claim 1 (Col.4, lines 3-24, "encoding process" inherently includes an encoder).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Davidson (5,394,473) teaches an adaptive block length, adaptive transform, and adaptive window transform coder, decoder, and encoder/decoder for high quality audio.

Davis et al., (4,451,954) teach a quantization noise suppression for encoder/decoder system.

Davis (5,699,484) teaches a method and apparatus for applying linear prediction to critical band subbands of split-band perceptual coding systems.

Antill et al., (5,297,236) teach a low computational complexity digital filter bank for encoder, decoder, and encoder/decoder.

Isozaki (5,999,905) teaches an apparatus and method for processing data to maintain continuity when subsequent data is added and an apparatus and method for recording said data.


Fielder et al., (6,226,608) teach data framing for adaptive block length coding system.

Laczko, Sr. et al., (5,644,310) teach an integrated audio decoder system and method of operation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (703) 305-3836. The examiner can normally be reached on Monday Through Thursday 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vijay B. Chawan
Primary Examiner
Art Unit 2654

Vbc
3/8/04